

WHAT IS CLAIMED IS:

1. A method for synchronized communication of
information between a first station having a first modem
and a second station having a second modem, comprising
5 the steps of:

establishing a selected communications channel
between the first modem and the second modem; and
communicating the information over the selected
communications channel using coherent modulation
10 synchronized by an external frequency reference without
using a modem training interval.

2. The method of Claim 1, wherein the step of
establishing a communications channel between the first
15 modem and the second modem includes the steps of:

scanning a plurality of channels including the
selected communications channel; and

selecting the selected communications channel using
the results of a Link Quality Analysis (LQA) to compare
20 the plurality of channels.

3. The method of Claim 2, wherein the LQA is
conducted according to the requirements of MIL-STD-188-
141A.

4. The method of Claim 1, wherein the external
frequency reference is derived from a Global Positioning
System (GPS) direct sequence spread spectrum signal.

5. The method of Claim 1, wherein the external
frequency reference is derived from a double sideband
residual carrier signal.

6. The method of Claim 1, wherein the external frequency reference is derived from a 60 kiloHertz carrier frequency signal.

5 7. The method of Claim 6, wherein the external frequency reference includes a binary-coded decimal time code.

8. The method of Claim 6, wherein the 60 kiloHertz
10 carrier frequency signal is broadcast by a National Institute of Standards and Technology radio station.

9. The method of Claim 1, wherein the external frequency reference is derived from an amplitude
15 modulated broadcast signal.

10. A system for synchronized communication of information without using a training interval, comprising:

- a first station having a first modem;
- 5 a second station having a second modem; and
- a means for establishing a selected communications channel between the first modem and the second modem, wherein the information is communicated between the first and second modems using coherent modulation synchronized
- 10 by an external frequency reference without using the modem training interval.

11. The system of Claim 10, wherein the means for establishing a communications channel between the first
- 15 modem and the second modem comprises:

- a means for scanning a plurality of channels including the selected communications channel; and
- a means for selecting the selected communications channel using the results of a Link Quality Analysis
- 20 (LQA) to compare the plurality of channels.

12. The system of Claim 11, wherein the LQA is conducted according to the requirements of MIL-STD-188.

- 25 13. The system of Claim 11, wherein the external frequency reference is derived from a Global Positioning System (GPS) direct sequence spread spectrum signal.

- 30 14. The system of Claim 11, wherein the external frequency reference is derived from a double sideband residual carrier signal.

15. The system of Claim 11, wherein the external frequency reference is derived from a 60 Hertz carrier frequency signal.

5 16. The system of Claim 15, wherein the external frequency reference includes a binary-coded decimal time code.

10 17. The system of Claim 15, wherein the 60 kiloHertz carrier frequency signal is broadcast by a National Institute of Standards and Technology radio station.

15 18. The system of Claim 10, wherein the external frequency reference is derived from an amplitude modulated broadcast signal.

19. A system for communicating information without using a modem training interval, comprising:

a first station having a first modem;

a second station having a second modem; and

5 at least one Automatic Link Establishment (ALE)

Controller adapted to establish a selected communications channel between the first modem and the second modem, wherein the information is communicated between the first and second modems using coherent modulation synchronized

10 by an external frequency reference without using the modem training interval.